Appl. No. 09/715,414 Amdt. Dated March 2, 2004

Reply to Office Action of November 3, 2003

Attorney Docket No. 81876.0018 Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of generating surround-sound data including steps of: storing digital input/output signal in a memory; retrieving said input/output signal stored in said memory a predetermined time later; and adding said retrieved input/output signal to said digital input signal to generate an output signal, said method characterized in that:

said input/output signal to be stored in said memory is compressed by digital compression means before said input/output signal is stored in said memory; and

said input/output signal retrieved from said memory is expanded by digital expansion means before said input/output signal is added to said output signal.

providing a memory which has a sufficient storage capacity for storing a number of bits of data required to maintain a surround-sound for a maximum anticipated delay time;

supplying an instruction delay time voluntarily adjustable within a range of anticipated delay time;

determining the number of compression bits based on said instruction delay time and said storage capacity;

compressing digital input/output signal to a compressed digital signal with the determined number of compression bits, thereby supplying the compressed digital signal to said memory;

outputting said compressed digital signal retrieval from said memory said instruction delay time later as expanded digital signal after expanding; and

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adding said digital input signal and said expanded digital signal to output as said digital output signal.

2. (Currently Amended) An apparatus for generating a surround-sound signal from a digital signal input thereto, and providing an output signal derived from said input signal, said apparatus comprising:

digital compression means for compressing said input/output signal;

a memory for storing said compressed input/output signal until said compressed input/output signal is retrieved a predetermined time later;

digital expansion means for expanding said compressed input/output signal retrieved from said memory;

an adder for said expanded input/output signal to the current input signal.

delay time adjusting means to supply an instruction delay time;

a memory having a sufficient storage capacity for storing a number of bits of data required to maintain a surround-sound for a maximum anticipated delay time, and storing compressed digital signal until said compressed digital signal is retrieved said instruction delay time later;

digital compression means for compressing digital input/output signal to said compressed digital signal of the number of compression bits determined based on said instruction delay time and said storage capacity and for supplying the compressed digital signal to said memory;

digital expansion means for expanding said compressed digital signal retrieved from said memory said instruction delay time later; and

an adder for adding said expanded digital signal to the current input digital signal.

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3. (Original) The apparatus according to claim 2, wherein said digital compression means is a differential pulse code modulation (DPCM) encoder, and said digital expansion means is a DPCM decoder.

- 4. (Cancelled).
- 5. (Cancelled).
- 6. (New) The method according to Claim 1, wherein said number of compression bits is obtained by dividing said storage capacity by said instruction delay time.
- 7. (New) The apparatus according to Claim 2, further comprising bit number setting means for setting the number of compression bits such that a larger number of compression bits is set step-wise for a shorter instruction delay time based on the number of compression bits when said instruction delay time is a maximum delay time.

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